



Infrared Spectroscopy for the Investigation of Molecular Association Mechanisms and the Fast Screening of Petroleum Fluid Constituents

Mihrin, Dmytro; Hoeck, Casper; Larsen, René Wugt; Feilberg, Karen Louise

Publication date:
2017

Document Version
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

Citation (APA):

Mihrin, D., Hoeck, C., Larsen, R. W., & Feilberg, K. L. (2017). Infrared Spectroscopy for the Investigation of Molecular Association Mechanisms and the Fast Screening of Petroleum Fluid Constituents. Abstract from Danish Hydrocarbon Research and Technology Centre Technology Conference 2017, Lyngby, Denmark.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Danish Hydrocarbon Research and Technology Centre Technology Conference 2017

Infrared Spectroscopy for the Investigation of Molecular Association Mechanisms and the Fast Screening of Petroleum Fluid Constituents

D. Mihrin¹, C. Hoeck², J. Andersen², R. Wugt Larsen² and K. L. Feilberg¹

¹The Danish Hydrocarbon Research and Technology Centre (DHRTC), 2800 Kongens Lyngby, Denmark

²Department of Chemistry, Technical University of Denmark, 2800 Kongens Lyngby, Denmark

Far-infrared cluster spectroscopy enables a *direct* assessment of the interaction strengths and molecular association mechanisms for dimethyl-ether (DME) with polar petroleum constituents and provides inputs for thermodynamic models of strongly associating DME-fluid mixtures. In a second approach, we are developing a reliable spectroscopic screening approach for the identification of organic acids, which adhere strongly to rock surfaces and are suspected to play a crucial role for oil recovery mechanisms.